

**REMARKS**

Receipt of the Office Action mailed January 12, 2001 is acknowledged. Claim 1 has been amended. Claim 1 has been amended to further define the claimed invention over the prior art applied in the outstanding Office Action. New claims 12 to 14 have been added. Support for these claims can be found at page 8, line 30 to page 10, line 12. No new matter has been added. Claims 1 to 11 stand rejected under 35 U.S.C. § 103(a) as being obvious over Chacko et al. (U.S. 4,970,274) in view of Schumacher et al. (U.S. Patent No. 4,486,507). These rejections are respectfully traversed. Reconsideration is requested.

**I. Rejection of claims 1-11 under 35 U.S.C. § 103(a)**

The Examiner applies Schumacher as the closest prior art. The Examiner acknowledges that Schumacher teaches a shrinkable film, and that such a film is used for sausage skins “due to its ability to shrink-wrap temperature sensitive goods at low temperatures.” See the Office Action at pages 2 and 3. Chacko is applied as teaching a film having specific block polyetheramides. The Examiner also states that the film of Chacko “conforms easily to a mold form, yet permits stretching of the film to conform to the mold under differential pressure.” See Office Action at page 4. Based on the teachings of the references, the Examiner concludes that it would have been obvious to one skilled in the art to use the specific block polyetheramides of Chacko in the invention of Schumacher “to obtain a sausage casing that has high shrinkability at relatively low temperatures and ease of processing.” Reconsideration and withdrawal of the rejection are respectfully requested.

**The combination of references fail to teach or suggest a film having 5 to 20% shrinkage at 80°C**

Claim 1 has been amended to recite a food casing “having a residual shrinkage in the range of from 5 to 20% at 80°C.” The prior art fails to suggest this claimed feature and, in fact, teaches away from this claimed feature.

As the Examiner has pointed out, Schumacher teaches “shrinkable” films. For example, see Schumacher at column 1, lines 7-9 (“invention relates to a transparent, shrinkable film...”); column 2, lines 45 to 50 (“I have discovered a shrinkable polyamide film possessing all of the following desired properties. 1. Good shrinkability at relatively

low temperatures; 2. Stretchability at relatively low temperatures; 3. Stretchability with not too high an expenditure of force; ..."); and claim 1 ("[a] transparent, shrinkable film ..."). It is clear from a reading of Schumacher that shrinkability is of primary importance.

Chacko is silent regarding the shrinkability of the film. However, Chacko does teach that the film must permit stretching in order to conform to a mold. See, e.g., Chacko at column 5, lines 31 and 32. In view of the fact that Schumacher at column 8, lines 42 to 45, teaches that good stretching is required for shrinkability, it would naturally follow that Chacko will also be a shrinkable film.

Accordingly, in view of the fact that the references alone or in combination fail to suggest a film having the claimed shrinkage and, in fact, teach away from such a film, reconsideration and withdrawal of the rejection are respectfully requested.

## II. New Process Claims 12 to 14

New process claims 12 to 14 have been added. These claims contain all the features of amended claim 1. For at least the reasons that claim 1 is allowable, these claims are also allowable. Examination and allowance of these claims are respectfully requested, when claim 1 is found allowable. See MPEP 812.04.

In view of the foregoing, it is respectfully urged that the present claims are in condition for allowance. An early notice to this effect is earnestly solicited. Should there be any questions, Examiner Hon is courteously invited to contact the undersigned at the number shown below.

Respectfully submitted,

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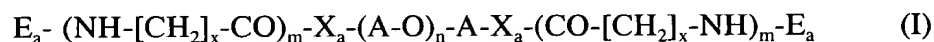
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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.

**MARKED UP VERSION OF CLAIM AMENDMENT MADE  
IN AMENDMENT FILED APRIL 12, 2001**

Marked up rewritten claims:

1. (Twice Amended) A biaxially stretched and thermoset, tubular, seamless, single-layer or a biaxially stretched and thermoset, tubular, seamless, multiple-layer food casing having a residual shrinkage in the range of from 5 to 20% at 80°C, in which the layer or, in the case of multiple-layer casings, at least one of the layers comprises a block copolymer containing "hard" aliphatic polyamide blocks having a glass-transition temperature of from 20 to 80°C and "soft" aliphatic polyether blocks having a glass-transition temperature of from -100 to -20°C, which block copolymer corresponds to one of the formulae I to III



where

A is an alkanediyl radical of the formula

-CH<sub>2</sub>-CH<sub>2</sub>- (= ethane-1,2-diyl),

-CH<sub>2</sub>-CH(CH<sub>3</sub>)- (= propane-1,2-diyl) or

-(CH<sub>2</sub>)<sub>4</sub>- (= butane-1,4-diyl),

X<sub>a</sub> is -O- or -NH-,

E<sub>a</sub> is H, (C<sub>2</sub>-C<sub>8</sub>)alkanoyl, benzoyl or phenylacetyl,

CO-N([CH<sub>2</sub>]<sub>x-1</sub>-CH<sub>3</sub>)-CO-(C<sub>1</sub>-C<sub>4</sub>)alkyl,

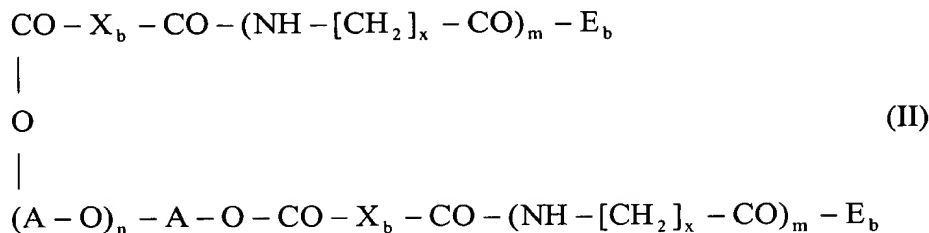
CO-N([CH<sub>2</sub>]<sub>x-1</sub>-CH<sub>3</sub>)-CO-C<sub>6</sub>H<sub>5</sub> or

CO-N([CH<sub>2</sub>]<sub>x-1</sub>-CH<sub>3</sub>)-CO-CH<sub>2</sub>-C<sub>6</sub>H<sub>5</sub>,

x is an integer from 5 to 11,

m is an integer from 30 to 200 and

n is an integer from 4 to 60;



where

$\text{X}_b$  is an alkanediyl radical of the formula  $-\text{[CH}_2\text{]}_z-$ ,

where  $z$  is an integer from 4 to 10,

*meta*- or *para*-phenylene,

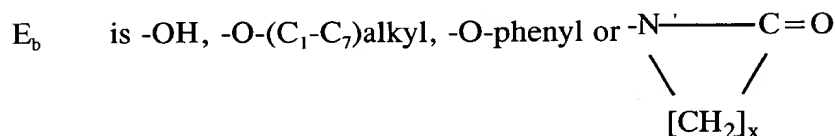
$-\text{NH}-(\text{C}_1-\text{C}_6)\text{alkyl}-\text{NH}-$ ,

$-\text{NH}-\text{C}_6\text{H}_3-(\text{CH}_3)-\text{NH}-$ ,

$>\text{N}-[\text{CH}_2]_{x-1}-\text{CH}_3$ ,  $-\text{[CH}_2\text{]}_z-\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-$  or

$-\text{C}_6\text{H}_4-\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-$ ,

where  $\text{C}_6\text{H}_4$  is *meta*- or *para*-phenylene,



and

$\text{A}$ ,  $m$  and  $n$  have the meanings given above;



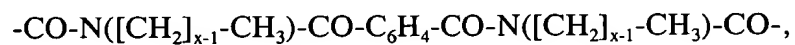
where

$\text{Y}$  is  $-\text{CO}-$ ,  $-\text{CO}-[\text{CH}_2]_z-\text{CO}-$  or  $-\text{CO}-\text{C}_6\text{H}_4-\text{CO}-$ ,

where  $\text{C}_6\text{H}_4$  is *meta*- or *para*-phenylene, or is

$-\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-\text{CO}-$ ,

$-\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-\text{CO}-[\text{CH}_2]_z-\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-\text{CO}-$  or



where  $\text{C}_6\text{H}_4$  has the meanings specified,

o is an integer from 10 to 150 and

p is an integer from 4 to 100 and

A, x and z have the meanings given above.